Cereal Leaf Beetle
Oulema melanopus

Cereal leaf beetle, *Oulema melanopus* (CLB) was first found in Montana over 2 decades ago. Since then, the pest has spread steadily across the state, infesting new counties every year. In most areas, CLB is a problem for grain during the period of time that the head is filling, due to feeding on the flag leaf by larvae. However, in Montana adults emerging from overwintering can also pose a problem due to feeding on emerging seedlings, sometimes to the extent of eating the entire plant.

Adult cereal leaf beetle. Approximate length 1/8 to 1/4 inch long.

During 2005, as in the past, routine surveys were taken for CLB. At least 5 samples were taken in each of the 30 surveyed counties, with a sample consisting of two sets of 50 sweeps with a 15-inch sweep net. When choosing fields to sample, preference was given to spring planted grains.

Cereal leaf beetles were found in 17 Montana counties during the 2005 sampling season. Counties that had been found positive for CLB in the past were not necessarily sampled during 2005.

Cereal leaf beetle was found for the first time in Blaine County, just north of Chinook. There were no other noted range expansions for this pest.

Larval cereal leaf beetles and light feeding damage.

Counties sampled for cereal leaf beetle during 2005, and outcome of sampling.

Cereal Leaf Beetle Parasitoids
Tetrastichus julis & *Anaphes flavipes*

The Cereal leaf beetle has spread across much of Montana during the past two decades. While initial movement was accompanied by severe outbreaks, and economic damage, in more recent years the beetle has not been as noticeable. This may be, in part, due to the nature of the newly infested areas, which are generally drier and therefore less hospitable for the beetle immatures. It may also be due to the presence of two parasitoids released by the USDA APHIS PPQ to assist in the management of this pest.

The first of these parasitoids to be released and recovered was *Tetrastichus julis*, an internal parasitoid of the larval CLB. The larvae of *T. julis* are maggot-like, and bright orange in color. In some samples, over 80 percent of the specimens of CLB have contained parasitoids, although this varies not only from place to place, but also from day to day in the same place. Data suggest that this parasitoid is capable of movement as rapidly as CLB. In the past, some samples have had parasitism rates as high as 80 percent. However, this year had much lower average numbers, with only a single sample yielding above 80 percent.

The second parasitoid, *Anaphes flavipes* (*Anaphes*) is an egg parasitoid. Although the insect has been released at several Montana locations, the exact status is more difficult to determine, partially because of the small size of insect, and partially because CLB eggs are prone to desiccation, making it more difficult to determine when mortality is due to the parasitoid.

During routine survey for the host, egg and larval samples were taken to further our information on the distribution of these two insects. Egg samples consisted of at least 25 eggs, while larval samples consisted of any larvae found in a sample. A larval sample consisted of 2 sets of 50 sweeps each, done with a standard 15-inch sweep net. At least 5 CLB samples were taken in each county.

Counties sampled for cereal leaf beetle parasitoids during 2005 and results.

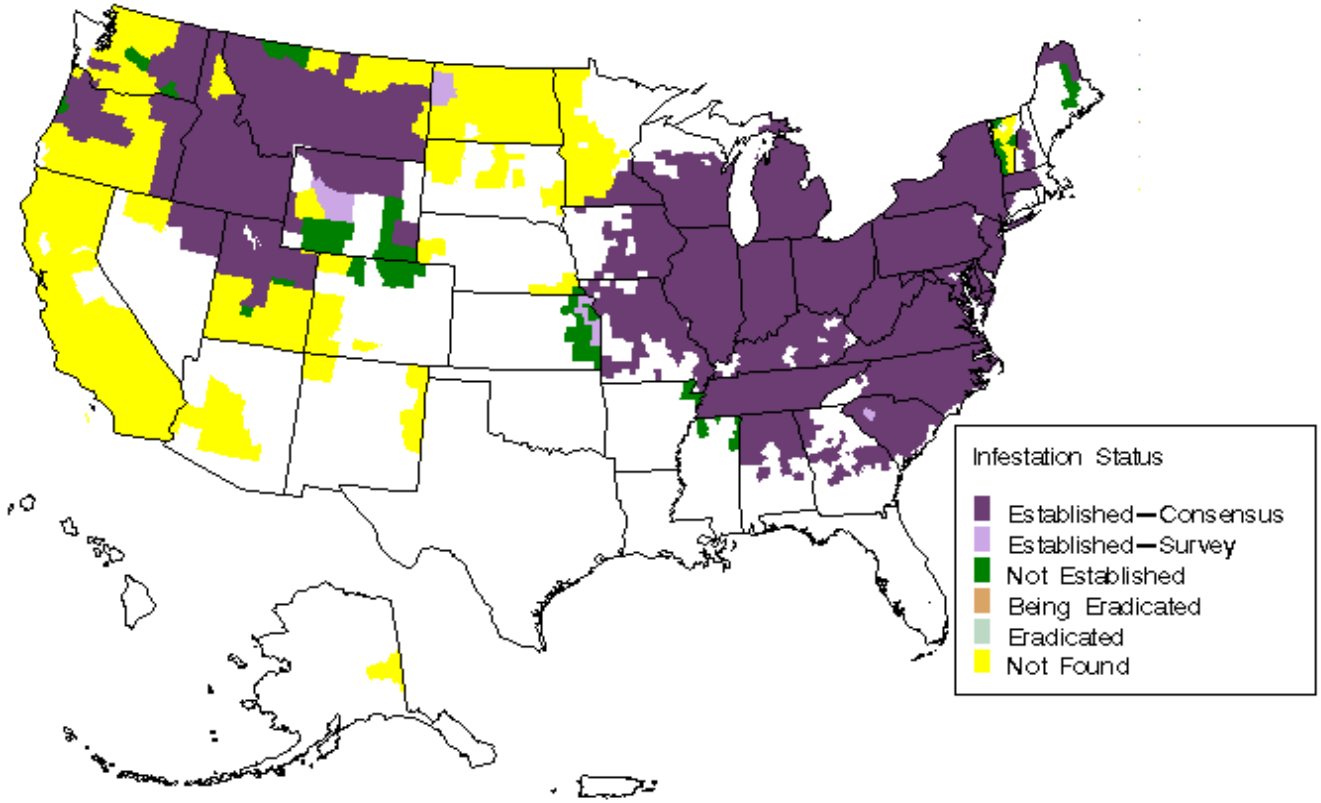
County	*T. julis*	*Anaphes*	County	*T. julis*	*Anaphes*
Big Horn	Yes	N/A	Missoula	Yes	No
Blaine	Yes	N/A	Richland	No	N/A
Carbon	Yes	N/A	Sanders	No	No
Dawson	No	N/A	Stillwater	Yes	N/A
Hill	No	N/A	Sweet Grass	Yes	N/A
Gallatin	No	N/A	Teton	Yes	N/A
Lake	Yes	No	Yellowstone	Yes	N/A

Reported Status of

CEREAL LEAF BEETLE (CLB) , OULEMA MELANOPUS

in US and Puerto Rico

Data retrieved from National Agricultural Pest Information System on 02/27/2006



The Center for Environmental and Regulatory Information Systems does not certify the accuracy or completeness of the map. Negative data spans over last 3 years only.

County	Present	County	Present
Big Horn	Yes	Pondera	Yes
Blaine	Yes	Powder River	No
Carbon	Yes	Prairie	No
Custer	Yes	Richland	Yes
Daniels	No	Rosebud	Yes
Dawson	Yes	Sanders	Yes
Gallatin	Yes	Sheridan	No
Glacier	No	Stillwater	Yes
Hill	No	Sweet Grass	Yes
Lake	Yes	Teton	Yes
Lewis & Clark	Yes	Toole	No
Liberty	No	Treasure	No
McCone	No	Valley	No
Missoula	Yes	Wibaux	No
Phillips	No	Yellowstone	Yes